

Non-invasive ventilation (NIV) as an aid to rehabilitation in acute respiratory disease

Submission date 22/11/2010	Recruitment status No longer recruiting	☒ Prospectively registered ☐ Protocol
Registration date 25/11/2010	Overall study status Completed	☐ Statistical analysis plan ☒ Results
Last Edited 15/05/2012	Condition category Respiratory	☐ Individual participant data

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
V1

Study information

Scientific Title
Non-invasive ventilation (NIV) as an aid to rehabilitation in acute respiratory disease: A prospective, single-blind, randomised controlled trial

Study objectives

We wish to establish if it is feasible and effective to deliver NIV-assisted exercise, before the patient has recovered sufficiently to exercise in a conventional unassisted fashion, aiming to prevent loss of muscle function during acute admissions to hospital.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Approved by South West London Research Ethics Committee 1 on the 1st of November 2010 (ref: 10-H0801-44)

Primary study design

Interventional

Study design

Prospective single blind randomised controlled parallel group trial

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Acute exacerbation of chronic obstructive pulmonary disease (COPD)

Interventions

Patients will be randomised to one of three arms

1. Usual care
2. 1 hour per day of physiotherapy input including cycle exercise
3. 1 hour per day of exercise using NIV to support breathing

Intervention Type

Other

Phase

Not Applicable

Primary outcome(s)

Quadriceps strength measured as quadriceps isometric maximum voluntary contraction force using a dynamometer at 2 weeks after discharge.

Key secondary outcome(s)

1. COPD Assessment Test (CAT) score
2. St George's Respiratory Questionnaire (SGRQ)
3. Physical activity monitored with SenseWear armband
4. Acceptability of treatment
5. Incremental shuttle walk test distance

All secondary outcomes will be assessed at baseline, discharge from hospital and 2 weeks post discharge.

Completion date

01/06/2011

Eligibility

Key inclusion criteria

1. Adult patient admitted with an acute exacerbation of COPD
2. Expected to be in hospital for at least 24 hours

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Sex

All

Key exclusion criteria

1. Patients who are not expected to survive the admission
2. Patients with significant co-morbidity which is thought to be the major factor limiting their exercise capacity
3. Inability to understand instructions or use an exercise bike

Date of first enrolment

01/12/2010

Date of final enrolment

01/06/2011

Locations

Countries of recruitment

United Kingdom

England

Study participating centre

Royal Brompton Hospital

London

United Kingdom

SW3 6NP

Sponsor information

Organisation

Imperial College London (UK)

ROR

<https://ror.org/041kmwe10>

Funder(s)**Funder type**

Government

Funder Name

National Institute of Health Research (NIHR) Respiratory Biomedical Research Unit (BRU) (UK) - run jointly by:

Funder Name

Royal Brompton & Harefield NHS Foundation Trust (UK)

Funder Name

Imperial College London, National Heart & Lung Institute (NHLI) (UK)

Results and Publications**Individual participant data (IPD) sharing plan****IPD sharing plan summary**

Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	16/12/2011		Yes	No